

WHAT IS CLAIMED IS:

- 1 1. A method of detecting a metastatic breast cancer or metastatic lung
2 cancer-associated transcript in a cell, the method comprising contacting a biological sample
3 with a polynucleotide that selectively hybridizes to a nucleic acid sequence at least 80%
4 identical to a sequence selected from those listed in Tables 1-12.
- 1 2. The method of claim 1, wherein the metastatic cancer-associated
2 transcript is a metastatic lung cancer-associated transcript.
- 1 3. The method of claim 1, wherein the metastatic cancer-associated
2 transcript is a metastatic breast cancer-associated transcript.
- 1 4. The method of claim 1, wherein the biological sample comprises
2 isolated nucleic acids.
- 1 5. The method of claim 1, wherein the polynucleotide or the biological
2 sample is labeled.
- 1 6. The method of claim 1, wherein the polynucleotide is immobilized on
2 a solid surface.
- 1 7. An isolated nucleic acid molecule consisting of a polynucleotide
2 sequence selected from those listed in Tables 1-12.
- 1 8. An expression vector comprising the nucleic acid of claim 7.
- 1 9. A host cell comprising the expression vector of claim 8.
- 1 10. An isolated polypeptide which is encoded by a nucleic acid sequence
2 selected from those listed in Tables 1-12.
- 1 11. An antibody that specifically binds a polypeptide of claim 10.
- 1 12. The antibody of claim 11, wherein the antibody is an antibody
2 fragment.
- 1 13. The antibody of claim 11, wherein the antibody is a humanized
2 antibody

1 14. A method of detecting a metastatic breast cancer or metastatic lung
2 cancer cell in a biological sample, the method comprising contacting the biological sample
3 with an antibody of claim 11.

1 15. The method of claim 14, wherein the antibody is labeled.

1 16. A method of detecting antibodies specific to metastatic breast cancer in
2 a patient, the method comprising contacting a biological sample from the patient with a
3 polypeptide encoded by a nucleic acid comprising a sequence selected from those listed in
4 Tables 1A-5C, 11A-12C.

1 17. A method of detecting antibodies specific to metastatic lung cancer in
2 a patient, the method comprising contacting a biological sample from the patient with a
3 polypeptide encoded by a nucleic acid comprising a sequence selected from those listed in
4 Tables 6A-12C.

1 18. A method for identifying a compound that modulates a metastatic
2 breast cancer-associated polypeptide, the method comprising the steps of:
3 (i) contacting the compound with a metastatic breast cancer-associated
4 polypeptide, the polypeptide encoded by a polynucleotide that selectively hybridizes to a
5 nucleic acid sequence at least 80% identical to a sequence selected from those listed in Tables
6 1A-5C, 11A-12C; and
7 (ii) determining the functional effect of the compound upon the polypeptide.

1 19. The method of claim 18, wherein the functional effect is determined by
2 measuring ligand binding to the polypeptide.

1 20. A method for identifying a compound that modulates a metastatic lung
2 cancer-associated polypeptide, the method comprising the steps of:
3 (i) contacting the compound with a metastatic breast cancer-associated
4 polypeptide, the polypeptide encoded by a polynucleotide that selectively hybridizes to a
5 nucleic acid sequence at least 80% identical to a sequence selected from those listed in Tables
6 6A-12C; and
7 (ii) determining the functional effect of the compound upon the polypeptide.

1 21. A method of inhibiting proliferation of a metastatic breast cancer -
2 associated cell in a patient, the method comprising the step of administering to the subject a
3 therapeutically effective amount of a compound that modulates a polypeptide encoded by a
4 nucleic acid sequence selected from those listed in Tables 1A-5C, 11A-12C.

1 22. A method of inhibiting proliferation of a metastatic lung cancer -
2 associated cell in a patient, the method comprising the step of administering to the subject a
3 therapeutically effective amount of a compound that modulates a polypeptide encoded by a
4 nucleic acid sequence selected from those listed in Tables 6A-12C.

1 23. A drug screening assay comprising the steps of
2 (i) administering a test compound to a mammal having metastatic breast
3 cancer or a cell isolated therefrom;
4 (ii) comparing the level of gene expression of a polynucleotide that selectively
5 hybridizes to a sequence at least 80% identical to a sequence selected from those listed in
6 Tables 1A-5C, 11A-12C in a treated cell or mammal, with the level of gene expression of the
7 polynucleotide in a control cell or mammal, wherein a test compound that modulates the level
8 of expression of the polynucleotide is a candidate for the treatment of metastatic breast
9 cancer.

1 24. A pharmaceutical composition for treating a mammal having
2 metastatic breast cancer, the composition comprising a compound identified by the assay of
3 claim 23 and a physiologically acceptable excipient.

1 25. A drug screening assay comprising the steps of
2 (i) administering a test compound to a mammal having metastatic lung cancer
3 or a cell isolated therefrom;
4 (ii) comparing the level of gene expression of a polynucleotide that selectively
5 hybridizes to a sequence at least 80% identical to a sequence selected from those listed in
6 Tables 6A-12C in a treated cell or mammal, with the level of gene expression of the
7 polynucleotide in a control cell or mammal, wherein a test compound that modulates the level
8 of expression of the polynucleotide is a candidate for the treatment of metastatic lung cancer.

1 26. A pharmaceutical composition for treating a mammal having
2 metastatic lung cancer, the composition comprising a compound identified by the assay of
3 claim 25 and a physiologically acceptable excipient.

1 27. A method of detecting a metastatic breast cancer-associated
2 polypeptide in a cell, the method comprising contacting a biological sample from the patient
3 with a antibody that that specifically binds a polypeptide encoded by a polynucleotide
4 sequence selected from those listed in Tables 1A-5C, 11A-12C.

1 28. The method of claim 27, wherein the antibody is labeled.

1 29. A method of detecting a metastatic lung cancer-associated polypeptide
2 in a cell from a patient, the method comprising contacting a biological sample from the
3 patient with a antibody that that specifically binds a polypeptide encoded by a polynucleotide
4 sequence selected from those listed in Tables 6A-12C.

1 30. The method of claim 29, wherein the antibody is labeled.